Mohit Deoli

• devmt04.github.io

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Technical Skills

Languages: C/C++, Python, Java, x86 Assembly, HTML/CSS, JavaScript, SQL

Developer Tools: VS Code, Qt Creator, Android Studio

Technologies/Frameworks: Linux, Qt(C++), Django, PyTorch, Git, CMake, Makefile

Open Source Experience

Contributor - NumPy (Open Source Scientific Computing Library)

August 2025 - Present

- Contributed to the core codebase of NumPy, working with both C and Python code.
- Submitted 3 pull requests.
- Some Submitted PRs: #29506, #29507, #29557
- Github Repo: devmt04/numpy

Projects

TODOWidget $\mid C, XLib, SQL, Makefile$

July 2024

- Developed a lightweight and fully customizable desktop widget for managing to-do items on **Linux**, using low-level X11 api, C, and SQL.
- Implemented entirely from scratch with **no external dependencies for UI**, resulting in a minimal and efficient footprint.
- Manually created all GUI components for complete control and performance optimization.
- GitHub Repo: devmt04/TODOWidget

Vedika Web Browser | C++, Qt, HTML/CSS/JS, CMake

May 2025

- Developed a custom web browser with a fully-fledged tab and navigation system using Qt and C++.
- Designed to address **limitations** in **existing browsers** by enabling true **multitasking** with support for multiple web pages simultaneously.
- Implemented dynamic layout modes Single, Split, and Grid to allow flexible viewing and interaction with multiple tabs.
- Built with a modular architecture showcasing strong object-oriented design and efficient custom widget integration for enhanced performance and visual control.
- GitHub Repo: devmt04/VedikaBrowser

HRNET-MTL: Multi-Task Human Image Model | Python, NumPy, PyTorch

July 2025

- Developed a multi-task learning (MTL) model using High-Resolution Network (HRNet) as the backbone architecture.
- Designed to simultaneously perform three tasks on human full-body images: age estimation, body part segmentation, and pose estimation.
- Reproduced and integrated the **PCGrad algorithm** by studying its original paper to address gradient conflicts problem commonly encountered in MTL.
- Engineered a High-Level modular API using Python OOP principles to allow easy customization and training by end users.
- GitHub Repo: devmt04/HRNET-MTL

Education

Lovely Professional University

Apr. 2023 - Current

Bachelor of Technology in Computer Science and Engineering

Phagwara, Punjab

Languages

English: Full Professional Proficiency

Hindi: Native Proficiency